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**Original Communications.**

**A CASE OF CEREBRAL EXHAUSTION.**

By DAVID MACK, M.D.

WHILE practising in Springfield, Mass., I was called, on the 2d of September, 1872, to see an unmarried lady, aged about 24 years, living in comfortable circumstances with her parents. She had been ill for about two years; had been treated by some seven different physicians without material benefit, and both she and her friends despaired of being helped by medical treatment.

The history of the case, elicited after a rather long cross-questioning, was about as follows: My patient had always had an active mind, and had been ambitious of improving it, but had enjoyed good health until attacked by the whooping cough. This began in the fall, nearly two years before, and continued during the winter, she meanwhile disregarding it as much as possible, and drugging herself to keep down the paroxysms, and continuing to study, and also to assist her father in his accounts. Besides the spending of several hours a day over business affairs, her studying, which, according to her statement, extended to philosophy and other abstruse matters, was conducted when she was already fatigued, and often in the lying posture, and in utter disregard of the needs of her body. Although already become too weak to continue her assistance to her father when I saw her, she had not given up her studying. A cough had remained after the whooping cough; this was persistent, troublesome, and accompanied by much pain in the chest, which latter had been treated as pleuritic. Her strength, appetite and weight had failed, and she had for some time been considered as in consumption, and had taken cod-liver oil, whiskey, &c. &c., together with many narcotics to overcome the persistent wakefulness, which had annoyed her for many months.

Her condition, at my first visit, was as follows: She was up and dressed, but hardly able to walk across the room, owing to weakness, and to the irritable action of her heart, which beat feebly and very irregularly, varying from 120 to 140, and, at times, even to 160 pulsations per minute on exertion. This symptom had given both the patient and her parents and physician much anxiety; it had been much observed and kept a good deal under control by veratrum

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viride. She had a sallow paleness of countenance, was emaciated, had considerable dry cough, complained of occasional and fleeting attacks of pleuritic pain; there had been no hæmoptysis. Her hair, which was cut short, was very thin; and on the right side, over the coronal suture, there was an oval, bald place, about two and a half inches long. The scalp appeared healthy, and, to the naked eye, the hair bulbs, also. The general look of the head reminded one of a mangy dog. Her appetite was poor, and she ate very little, but there was no special disturbance of the digestion, no vomiting, &c.; there was no constipation or looseness of the bowels, nor had there been. The tongue was pale and moist. There was none of the hysterical expression of countenance, no history of disappointed affections; there were no "puncta dolorosa" on the head or spine; no uterine irregularities. The urine became muddy on standing. She was noticed to be mentally irritable, and complained of inability to use her mind as she desired, and, as before mentioned, had not slept well for months, although a great variety of narcotics had been used. The pupils were unusually large. Auscultation and percussion had to be attempted without a fair chance to get at the chest; dulness at both apices, together with a harsher respiratory murmur, was recognized, but no râles, gurgling, or other indication of active pulmonary disease. The heart sounds were feeble, but no bruit was detected.

On reflection, it was believed that if the local affection of the lungs had formerly been her chief disease, it was not so now, and that all the disturbance might, and probably did, originate in a marked depression of the activity of the brain and nervous centres generally, hysteria being excluded.

The patient was therefore told that this was the diagnosis; to give up fretting about and noticing the pulse; to give up the symptomatic drugging which had been pursued; to get fresh air daily, on horseback if possible; and not to stay shut up in the house as hitherto for fear of "pleurisy pains;" to rest her mind entirely for a couple of hours, or more, after meals, and not to strain it for some weeks; and to immediately stop any use of the body or mind on the beginning of fatigue. Reading while lying down, and especially at night, was forbidden. Beef, mutton and fish, together with either beer or wine at dinner and other simple and nourishing food were advised. As a nervous stimulant, one-thirtieth of a grain of strychnia, dissolved in fifteen drops of dilute phosphoric acid with water to a drachm, were prescribed, to be taken ten minutes before each meal. As for a soporific, which was very much desired by the patient and seemed really desirable to me, I presumed I could not prescribe any which had not been tried by my seven predecessors, and accordingly gave up the idea of using any drug, trying the following experiment instead: I directed that my patient should retire early; and immediately beforehand should take upon her head and all over her body a

shower-bath of the temperature of the body, taking care to use friction freely all over the body, both before and afterwards, and then to go at once to bed. All other treatment was discontinued.

Sept. 11th.—On making a second visit to-day, I had the satisfaction of finding that all my directions had been attended to in spite of the fears of an over-anxious mother in regard to the bath. The result of the bath had been so marked in producing sound sleep that the mother had awakened her daughter, fearing she might be dying. After the first trial, sound and refreshing sleep had followed its use every night, such as had not been enjoyed for many months. My patient had improved much in appetite and had gained five pounds in weight, and her strength and general condition had advanced also. The bald patch on the head and other parts of the scalp had a decided growth of young hair, which the patient noticed with satisfaction, and which was very evident to me as something new. No local application had been made to the scalp. The "pleurisy pains" had not been very bad, and the pulse gave less trouble, though still rather rapid. Treatment was continued, with the addition of a wash to the scalp containing tincture of *nux vomica* and tincture of *cantharides*, as recommended by Tillbury Fox in such cases.

Sept. 23d.—I found to-day that some looseness of the bowels had set in, which had caused the omission of the medicine more or less, and that although the patient had gained about three pounds, she was not feeling as well, yet she had for several days been able to play on the piano again. The hair continued to grow well. The strychnia mixture was omitted; an astringent mixture to check the diarrhoea and a pill of iron and quinine were ordered. The rest of the treatment was continued.

Oct. 8th.—Patient had done moderately well, but had been troubled by the quinine and had not used it much. The diarrhoea had disappeared; pulse and pleuritic pains were less troublesome; the hair continued to grow well. I insisted on the patient sleeping in a cooler chamber and keeping the temperature of the sitting room as low as 76°. I advised her to spend most of her time on the sunny side of the house and the use of sun-baths, which, as direct sunlight was complained of as causing headache, was recommended, to be taken behind violet tinted glass.

The following prescription was left:

R Ferri phosph.,  
Calcis phosph.,  
Calcis carb., aa gr. i.;  
Glycerinæ,

Aquæ, aa 3 ss. M. Take after each meal. Regimen as before.

Nov. 1, 1873.—Having been taken ill myself soon after the last visit, I had not seen my patient until to-day, when she called on me, having learned that I was in town. After my last visit, she used the medicine recommended and improved steadily; when it was used

up, she felt well enough for a while without it, but finally feeling that help was again needed, sent for me; finding that I was away, the bottle was again filled, and again she had been benefited. During the past thirteen months, no other treatment had been followed, she had consulted no physician for her general health, and for the past four months had considered herself perfectly well, had used no medicine and had discontinued horseback exercise. She had a fine ruddy color, had gained in flesh from 95 to 120 pounds, and had a thick growth of hair. No examination of the lungs was made, and as nothing was said about sun-baths they were probably not used.

Exhaustion of brain power is described by Da Costa\*; Flint† mentions nervous asthenia; Forbes Winslow‡ speaks of mental exhaustion; Niemeyer in his text-book§ has much to say concerning cerebral anæmia, and the descriptions of all these writers correspond with this case. Dr. F. E. Anstie, as quoted by Dr. E. H. Clarke,|| speaks not merely of exhaustion of nervous power, but of secondary irritation of centres like the medulla oblongata. Dr. C. B. Radcliffe\*\* has said much that is interesting concerning cerebral exhaustion, although he is mistaken in supposing that it had hitherto escaped distinct recognition. He says, after a full description of the various symptoms, of course they are not all present in the same case, and there is an apparent dissimilarity in many cases. Still, for the most part, there can be no insuperable difficulty in the matter of diagnosis. There is always, however, the possibility that the symptoms may mean more than mere cerebral exhaustion. If they pass off quickly, they may indicate nothing more than mere cerebral exhaustion: if they do not, they may indicate a graver state of disease. Forbes Winslow says, †† "this phase of mental and bodily ill health, in the majority of cases, speedily yields to the judicious administration of stimulants and blood tonics, associated with appropriate moral treatment, provided no structural mischief has commenced in the brain. The symptoms are, however, occasionally precursory of formidable attacks of organic disease of the brain." The violent disturbance of the heart, the pleuritic pain and the baldness seem to have been peculiarities of this case. Whether the first was due to exhaustion of the medulla oblongata, or merely to irritation, I am of course unable to say, although I should presume it probable that want of the regulating power over the heart came from exhaustion; the pleuritic pain probably points to irritation of the upper portion of the spinal cord.

The treatment in this case seems to have caused the prompt relief

\* Medical Diagnosis, edition of 1864.

† Practice of Medicine, edition of 1868.

‡ Obscure Diseases of the Brain, edition of 1868.

§ American translation of eighth edition, 1871.

|| Sex in Education.

\*\* London Lancet, April 12, 1873.

†† Op. Cit.



which ensued, and it would be interesting to know whether the strychnia or the phosphoric acid was the more efficient. Strychnia is believed to act on the spinal cord and not on the brain, and is said to strengthen the beating of the heart,\* and Headland says that along with the spinal cord, it doubtless also acts upon that part of the brain which is immediately associated with the spinal system of nerves.

Phosphorus is called by Headland a stimulant, quickening the pulse in small doses and somewhat heightening mental activity. It is given considerably in neuralgia, and the phosphates in nervous debility. In the *Practitioner* for July, 1873, M. Gubler speaks of it as a diffusible stimulant of great energy and dangerous activity. Fish, owing to its containing phosphorus, is recommended by Dr. Edward Smith† as being good for those doing much brain work, or victims of anxiety and distress. Ringer says that phosphoric acid exists in the blood as phosphates and acts as such. Dr. Slade-King‡ thinks phosphorus is probably decomposed into phosphoric acid, phosphorated hydrogen and phosphorous acid when administered internally. Broadbent,§ after giving instances of the successful use of phosphorus in diseases of the nervous system, and speaking of the difficulty of administering it without impairment of its efficiency by oxydation, scorns the idea of giving it in the form of phosphoric acid as absurd. Still, in this case, a powerful stimulus seems to have been exerted upon the brain by it.

Having spoken of this case to a medical friend, whose experience and ability I highly respect, he said he had found the combination I had used of decided benefit, but thought the addition of small doses of quinine made it a more powerful nervous stimulant. This combination I have taken myself, while suffering from cerebral exhaustion, and with wonderfully good effect; so that, taking one-thirtieth of a grain of strychnia, one grain of sulphate of quinine, dissolved in fifteen drops of dilute phosphoric acid and water to a drachm, directly after each meal, I found myself feeling mentally stimulated during the first day; having a pressure within the head during the second day (something very unusual for me); and on the third day, able to write letters and do an amount of mental and muscular work that was very gratifying, and which I had for months been unequal to. But for such stimulus to my nervous system, I am confident that work which I went through with between seven and four weeks ago, would have been quite impossible, and that much less than I accomplished would have made me sick. The phosphate mixture seems already to have acted as a tonic to the nervous system.

The shower-bath, as administered in this case, had a happy effect. The fall of water on the head probably stimulated the brain, while

\* Ringer.

† On Foods, 1873.

‡ *Practitioner*, June, 1873.

§ *Practitioner*, April, 1873.

the warmth acted as a general calmative to the nerves. Walton\* says that the warm bath has been used advantageously in mania, chorea and hysteria; and Forbes Winslow† says the shower-bath is often used with great benefit, particularly in certain forms of melancholia, associated with nervous depression and general debility, and that a warm bath a short period before retiring to rest will often insure a quiet and composed night, when no description of sedative, however potent its character and dose, would influence the system.

Finally, my hope that this case may be of some interest to others, as it certainly was to myself, must be my excuse for the length of this communication.

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THE LATE LORD DENMAN.—The *British Medical Journal*, January 3, 1874, states that the memoir of the late Lord Denman, by Sir Joseph Arnould, contains a study of aphasia of great interest. On the 25th of December, 1872, his lordship had a paralytic attack. His biographer thus describes the condition in which it placed him: "While he retained his intellectual and emotional faculties almost unimpaired, his powers of communication with others, by writing as well as by speech, were absolutely and entirely taken from him. That speech, indeed, should go, was quite in the ordinary course of paralytic seizures; but it does not, it is believed, always, or, indeed, often, follow to the extent that it did in Denman's case, that the power of self-originated writing should be totally extinguished. He could frame written letters with a pen; he could readily distinguish one ivory letter from another when ranged in lines before him; but to form these letters into words, or words into sentences, was utterly beyond his powers, unless the words or sentences were written, or put together as a model for him to copy. When he had received letters—and many kind correspondents, knowing the delight he felt in perusing them, were constant in writing to him—the only way he could acknowledge them was by copying, in a sort of formal print-hand, any passage in them that had particularly pleased him, and causing that to be sent to the writers, in token that he had read and been pleased by their communications. . . . He soon wrote very tolerably with the left hand, but it was found that he could 'originate nothing;' and when some deeds were sent from England for his signature, he could only sign his name by seeing it written out and copying it; and yet his mind was as clear as ever to receive impressions. He could read, and could clearly understand everything that was either read or said to him. Law reports, debates in Parliament, &c., interested him as much as ever; and he showed by his countenance and by signs that he not only appreciated fine passages, but that he perfectly understood controverted points, and, could he have expressed himself, was as capable as ever of deciding them." In this state he continued for nearly two years—his death taking place rather suddenly on September 22d, 1854.

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\* Mineral Springs of the United States and Canada, 1873.

† Op. cit.

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## Progress in Medicine.

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### REPORT ON DISEASES OF CHILDREN.

By D. H. HAYDEN, M.D.

(Concluded from page 145.)

#### ANTI-FEBRILE METHODS IN THE FEVERS OF CHILDREN.

Dr. G. MAYER, of Aachen (*Jahrbuch für Kinderheilkunde*, July, 1873) objects to calling salt baths of  $86^{\circ}$  to  $89.6^{\circ}$  warm, as in Dr. Schwalbe's article (vide JOURNAL, Feb. 6, 1873, p. 135). A bath of this temperature does not feel warm to a person in health; to a child with fever and a temperature of  $104^{\circ}$  it must feel decidedly cool. In typhoid fever, Ziemssen uses, with children and chlorotic girls, a bath gradually cooled down, beginning with  $95^{\circ}$ – $86^{\circ}$ , and has often found that, by diminishing the temperature to  $83.7^{\circ}$ , this has sufficed to lower the temperature of the child two to three degrees for four or five hours. The author, in a very extensive practice, has been in the habit, for several years, in febrile diseases of children, especially in typhoid fever and croupous pneumonia, sometimes, also, in fevers depending upon transitory disturbances of digestion, and setting in with a very high temperature, of using cool baths, partly of  $90.5^{\circ}$ , cooled down to  $86^{\circ}$ ,  $81.5^{\circ}$  or  $77^{\circ}$ , partly of a stationary temperature of  $83.7^{\circ}$ – $86^{\circ}$ , and has nearly always seen good results immediately follow in the way of quieting the child, producing better sleep, &c., although, in the majority of cases, he had no opportunity of taking exact measurements of the temperature after each bath.

Liebermeister lays great stress upon the size of the child, as to effect produced, the larger the surface upon which the cool bath acts, the greater the reduction of temperature. The effect upon adults is well known. Jürgensen, the great advocate of cold baths, uses, in certain forms of pneumonia, a temperature of  $86^{\circ}$  lowered to  $77^{\circ}$ , of twenty minutes' duration, always obtaining a considerable reduction of heat for a relatively long time. The author agrees only conditionally to Schwalbe's statement that the use of cold baths meets with insurmountable difficulties in children. When unaccustomed to them, they are always frightened, but when habitually given in health, in case of sickness they can also be given, and whether a little more or less cool makes no difference. In older children, from six to fourteen, a great fuss is often made. In some cases, the author was obliged to desist. In such cases, the local application of cold (ice-bags to the breast and abdomen, Riegel) and quinine serve as good substitutes. In very severe cases, when the temperature is continuously high, or when it rises rapidly, as in typhoid fever, scarlatina, pneumonia, and certain cases of acute rheumatism, these moderately cool baths ( $86^{\circ}$  lowered to  $77^{\circ}$ ) do not suffice, and more energetic measures become necessary. Since 1870, when the author reported a number of cases thus treated, he has used cool baths with more than twenty children affected with typhoid fever, and always with good results. The milder cases were not subjected to this treatment. The two youngest were respectively nine and seven months old. The full bath was almost always used, beginning with  $90.5^{\circ}$ – $88.2^{\circ}$ , and gradually cooled

to  $81.5^{\circ}$ – $79.2^{\circ}$ , or, where the patient's temperature was very high, to  $72.5^{\circ}$ – $70.2^{\circ}$ . The duration was generally ten to fourteen minutes. The child's temperature was taken every three hours, in the severest cases, day and night. When it reached  $103.6^{\circ}$  in the axilla, or  $102.9^{\circ}$  in the rectum, the bath was used. The rectum was used with children up to two or three years old; after that age, the axilla always. For measurement in the rectum, the small thermometers of Geissler, in Bonn, are recommended; for the axilla, larger ones, as, for example, Leyser's, are preferable. The taking of the temperature can be entrusted to intelligent parents, thus making the attending physician's duties lighter, and his visits less often. The author expresses great astonishment at Professor Vogel's want of recognition of the great advantages of exact thermometrical measurement, in his work upon children's diseases, causing his therapeutics, since the first edition in 1860, to remain stationary, and to be behind the age. In the catarrhal pneumonia of children, for which, especially, Schwalbe recommends warm salt baths, the author does not consider cool baths necessary, as the cold water dressings to the back, as recommended by Bärtel, Ziemssen, Steffen and others, answer the best purpose. In this disease, it is not so much the high temperature that causes danger, as the impediment to respiration, and cold water dressings act most favorably in such cases, by causing deep inspiratory acts, at the same time, also, lowering the temperature. In croupous pneumonia, the reverse is the case; and here, owing to the continuous high temperature, the cool baths are indispensable. In one hundred and ten cases thus treated by Jürgensen with baths, quinine and wine, there were only four deaths, and in three of these the pneumonia was a sequel of other diseases, one being complicated with pericarditis and purulent infiltration. In Jürgensen's own child, 19 months old, the temperature rising above  $104^{\circ}$ , and this rapidly, after a bath of  $66^{\circ}$ , he did not hesitate to lower the temperature of the bath to  $45.5$ – $42.2^{\circ}$ . The author believes the exceptions very rare where the dangers of croupous pneumonia cannot be removed by this anti-pyretic method, although he has, as yet, never resorted to baths lower than  $72.5^{\circ}$ .

In scarlatina, according to Dr. D. Pilz (Treatment of Scarlatina and consecutive Dropsy by Baths), the effect upon the temperature was less than in typhoid fever; in the worst cases, several times negative. From his own experience, the author agrees with Dr. Pilz that cold water treatment in scarlet fever offers less chances on an average than in other diseases with an equally high temperature, partly owing to the complications, dangerous in themselves, independently of the high temperature (diphtheria, nephritis, &c.), and partly to the persistency with which the disease keeps its high temperature. When employed, the lowest temperatures must be used. The cases best adapted for this treatment are those where, from the very beginning, the temperature reaches a high grade, in the first days reaching  $105.8^{\circ}$ – $107.6^{\circ}$ , and when the child is threatened with death under symptoms of coma and convulsions. Analogous to these cases are the cerebral attacks, with sudden and excessive rise of temperature, in acute rheumatism, until but recently understood. In excessively high temperature, the energetic use of cold should never be left untried. Possibly, the good results of cold affusions in the last stages of cerebral diseases of children depend upon the hyperpyretic rise of temperature in such

cases. With regard to quinine, the author has been in the habit of using it in large doses, especially in typhoid fever, to a child six years old, giving eight to twelve grains at evening, in two doses, at half an hour's interval, and has never seen any ill effects, save occasional vomiting, a little increase of diarrhoea, and deafness. Ringing in the ears is rare, and the sleep is generally better. In most cases, there is marked diminution of temperature, lasting until the following day, and most marked toward the end of the forenoon. Since Hagenbach's publication upon "the use of quinine in fevers of children" (*vide JOURNAL*, Feb. 6, 1873), and after Liebermeister increased his maximum dose for adults to half a drachm, and Jürgensen to 80 grains, the author has resorted to larger doses, which he finds, by experience, to be free from danger and of great effect. The medicine is given in form of pill or powder. When the child is too young to swallow a pill, it is prescribed as a powder, to be taken in a wineglass of water, containing one or two dessertspoonsful of red wine, and sweetened. The whole is to be taken in the course of an hour or less, repeated, generally, every second day, exceptionally taken two evenings in succession. In connection with the cool baths and quinine, all observers now agree that a relatively generous use of wine is not only useful, but necessary. Jürgensen gives wine always before and after the bath in pneumonia. The author, in his treatment of typhoid fever and pneumonia, makes free use of Bordeaux and Tokay wine, and mentions the case of a child, nine years old, with typhoid fever, who drank daily, for several weeks, a half bottle of Chateau Lafitte.

#### FUNGUS GROWTHS IN THE LUNGS IN WHOOPING COUGH.

Letzerich has previously published an article in which he ascribes the cause of whooping cough to a fungus. He was able to produce this disease and its lung complications in rabbits, by bringing the fungus in contact with the mucous membrane of the epiglottis or trachea. In the same way as we have parasitic diseases of the skin, so we have them in the cavities of the mouth, fauces, larynx, trachea and œsophagus. Thrush, diphtheria and whooping cough, he regards as such. The fungus in diphtheria destroys the epithelium of the mucous membrane upon which it grows, especially that of the tonsils, fauces and upper portion of the larynx, gives rise to the formation of an exudation, and penetrates through the mucous membrane and lymphatic glands into the blood, setting up a general disease, which, in every case, is combined with a peculiar inflammation of the kidneys. The fungus of pertussis penetrates less deeply into the tissues, never destroying them, covering the folds of mucous membrane of the larynx, epiglottis, and generally extending as far as the bifurcation of the trachea. This causes an irritation of the nerves of the mucous membrane and its glands, by which a secretion of tough mucus takes place, increasing with the increased development of the fungus. The growth of the fungus and the mucous secretion exercise a steadily-increasing irritation, bringing on, at longer or shorter intervals, the characteristic paroxysms; with each paroxysm, masses of the fungus are expelled; a certain amount remains behind, and by reproduction and extension causes irritation anew and produces new paroxysms. After the disease has lasted some time, the secretion of mucus becomes more copious and of thinner consistence, containing less and



less of the fungous growth until, finally, it is all removed and the disease is ended. If the fungus extend further down into the bronchi and alveoli, which occurs most commonly in very young or weakly children, and in the severer epidemics, a catarrhal inflammation, with emphysema, ensues, the most common cause of fatal termination.

The microscopic examination of the lungs of those dying with secondary lung affections, shows extensive emphysema, and the presence of this fungous growth, even in the alveoli themselves. It wanders, but slowly, at first, into the parenchyma of the lungs, so that, at first, the inflammation is confined to isolated lobules.

The author had an opportunity, in a recent epidemic of pertussis (*Virchow's Archiv*, 57 Band, 3 and 4 Heft, 1873), to try the effect of quinine, as recommended by Wilhelm Jansen, in the Children's Hospital at Bonn, under Prof. Binz. The remedy exerted a most favorable influence on the disease, the paroxysms becoming less violent and less frequent; the duration of the disease was also shortened.

Quinine works, in a high degree, as a check upon the development of fungous growths. If this remedy could be brought into direct contact with the fungus on the mucous membrane of the epiglottis, or in the trachea (if it has extended so far), a cure could be easily effected in a short time, and its extension further downwards prevented. The internal administration, long continued, has an injurious effect upon the organs of digestion, necessitating, in many cases, its discontinuance. For these reasons, the author, in three cases, tried insufflation, adding to the quinine some bicarbonate of soda and powdered gum of acacia. The formula employed was:—

R. Quinæ muriatis, 0.01–0.015 grammes;

Sodæ bicarb., 0.015 grammes;

Acaciæ gummi, 0.25. grammes. M. Ft. pulv. D. No. x.

With two of these children, one five months, the other eight months old, the disease had existed already eight days, and was so violent that with each paroxysm, which recurred every quarter- to half-hour, there was vomiting, and very distressing retching; likewise, bleeding from the nose, and capillary hæmorrhages in the larynx. The insufflation, which required, at first, much practice, in order that the greater part of the powder should enter the larynx with forcible inspiration of the child while crying, was made twice daily. The tongue was fixed and drawn forwards with the little finger of the left hand. With the third child, a little boy four years old, a spatula was used, and the little patient was taught at the moment of insufflation to take a long breath. Improvement was rapid, and after eight to ten days no more fungi could be detected in the sputa, the only sure sign of cure. As a rule, a slight catarrh remains behind for a few days, owing to a sensitiveness of the mucous membrane.

#### TETANUS NEONATORUM.

In the *Jahrbuch für Kinderheilkunde*, Dec., 1873, is an article on the treatment of tetanus neonatorum with chloral hydrate, by Dr. And. v. Hüttenbrenner, of Vienna. Three of these cases were treated by chloral hydrate in the clinic of Professor Widerhofer, and two recovered. The medicine was administered in the following way: One or two grains, alone or mixed with a little milk sugar, were administered, dissolved in breast milk, through the nose, as the mouth was



firmly closed. The administration was generally followed immediately by a paroxysm, which ceased when the action of the chloral began. When the child fell asleep, it was carefully watched, so as to repeat the dose on the approach of the next paroxysm. When the effect of a one-grain dose did not last sufficiently long, it was increased to two, sometimes to three grains, so as to obtain an action lasting several hours, as a good result is only obtained where the child is held in continuous narcosis. The child's nourishment must not be neglected, but the breast milk must be given through the nose. Where such patients suffer with colic or meteorismus, warm poultices are applied to the abdomen, and enemata are administered; internally, *paulinia* and *tinctura kramerie* are given. Injurious effects from chloral hydrate are never observed when certain precautions are used. When there is an odor of chloroform in the breath, this is a sign of deep narcotism, and the medicine should be left off for a while, as, sometimes, chloral hydrate has an accumulative action. The three cases are reported in full, with records of the autopsy of the fatal case. The author draws the following conclusions:—

1. Tetanus is not an absolutely fatal disease.
2. The same can run through its course with or without fever. Those cases running a rapid course, with high fever, are cases where the tetanic symptoms are merely those of a general poisoning of the blood, whilst those cases without fever are to be regarded as of reflex origin, due to some peripheral irritation.
3. The cases without fever have a more favorable prognosis, although, where the fever is high, the prognosis is not absolutely a fatal one, as is shown by Dr. Kirchstetter's case, reported in the *Jahrbuch*, vii. *Jahrgang*.
4. Chloral hydrate is by no means a specific, but is a remedy preferable to all others:—
  - (a) Because it is a pure hypnotic;
  - (b) Because it has no unpleasant after-effects, as morphia has, causing hyperæmia of the brain;
  - (c) Because it is easily administered, and an accumulative action is very rare.

It has the advantage over chloroform of being more easily held under control. The child is put into a quiet sleep, and the consequences of long-continued muscular contractions, particularly of the diaphragm, are made less injurious. As tetanus lasts from fourteen days to three weeks, it is only necessary to enable the child to hold out this length of time for recovery to take place.

#### DIABETES MELLITUS.

Senator, in the Berlin Medical Society (*Berliner Klinische Wochenschrift*, 1872, No. 48), reported two cases of diabetes mellitus in children, one a boy 12 years old, the second a girl 13 years old, running a rapidly fatal course; and he remarked that in children this disease was very rarely met with, and that in such cases the prognosis was much more unfavorable than in adults. In one of these two cases, as well as in two of six other cases found reported, it was a notable fact that they began with enuresis.

Niedergesäss (*Inaugural-dissertation*, Berlin, 1873), in addition to the above, describes a case, observed for a long time by himself in the

Berlin University Poliklinik, of a young girl 12 years old, previously healthy. The disease made its appearance one year after a fall upon the head. Repeated examination showed a large amount (six to eight per cent.) of sugar in the urine, and a large increase of urea. In spite of animal diet, glycerine and cod-liver oil, the disease terminated fatally, seven months after its commencement.

#### NEURALGIA IN INFANTS.

Children from two to six weeks old, especially males, suffer frequently with attacks of pain in the bowels, coming on about midnight, and lasting until four or five in the morning. Children thus affected cry violently, but towards morning become quiet, fall asleep and the next day are well as ever. This enteralgia does not seem to be caused by any faecal accumulations; it is very noticeable, however, that during the paroxysm they pass no water, and at the end of it a large quantity of pale-colored urine comes away, as after an hysterical attack. The cause of this retention of urine is unknown. The disease affects children of all classes of society, indiscriminately, without reference to their hygienic condition. The remedy recommended by Dr. Boyd (*Edinburgh Medical Journal*, Feb., 1873; *Schmidt's Jahrbucher*, 1873, No. 2) is spiritus aetheris nitrosi, eight or ten drops in a drachm of water. Immediately afterwards, with escape of wind and the passage of a considerable quantity of urine, the crying ceases, and the little patient goes to sleep.

#### CHANGES IN THE WEIGHT OF NEW-BORN CHILDREN.

From experiments very carefully made, the details of which are given at length (*Archiv für Gynäkologie*, 5 Band, 3 Heft), Dr. Theodor Ketzmarzsky Buda-Pest draws the following conclusions:—

1. All children lose in weight the first few days after birth.
2. The loss begins the first few hours after birth, due to the evacuations of the bowels and bladder; this can, however, sometimes be temporarily compensated for by an abundant supply of nourishment, and thus be converted into a slight increase of weight, lasting, however, scarcely more than six hours.
3. The increase, as a rule, begins on the second or third day.
4. The loss is more precipitate than the increase, so that up to the seventh day scarcely more than the half of what was lost is regained.
5. There is no causal relation between the beginning of the increase and the falling off of the remnant of the cord.
6. Boys, as a rule, begin to increase in weight sooner than girls, undergoing, probably, a smaller loss, and showing a greater gain.
7. The increase of weight is greater with children of those who have previously borne.

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COLOR TEST FOR CHLORAL HYDRATE.—If we agitate chloral hydrate with essence of mint, the mixture becomes rose color, and by degrees a deep red. Boiling does not destroy this color, and sulphuric acid renders it even more intense. M. Carl Jehu says that neither the other oxygenated essences nor the simple hydrocarbons produce this reaction.—*Medical Press and Circular*.

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### Reports of Medical Societies.

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BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. F. B. GREENOUGH, M.D., SEC.

NOVEMBER 24, 1873.—*Thoracentesis*.—DR. LYMAN reported a case to show the good results of this operation.

The patient, a man aged 26, had had a cough, with pain in his right side and dyspnoea, for about six weeks; and, latterly, there was some oedema of the feet. He was tapped, and is doing very well, showing a marked contrast to a patient in the next bed to him, who had gone on for a long time with an effusion, and who, now, has empyema. He also spoke of a case where he had made a permanent opening, and put in a tube. The opening had healed, and the patient was discharged, well, although there was considerable contraction.

Dr. TARBELL spoke of a case in which Dr. Minot had made a permanent opening, by cutting down between the ribs, which had done very well; also of a case in his own ward, where pus showed signs of pointing near the cardiac region. This was opened, and nine pints of pus removed. The patient, however, not doing as well as was expected, after exploring with the pneumatic aspirator, Dr. Tarbell cut into the pleural cavity in the usual place, and put in a tube. The improvement since has been very marked, the patient having grown fat and strong.

Dr. BOWDITCH said that he had always advocated free opening in these cases, but that at the present time the fact of the patient's insisting upon having ether would modify his treatment in some cases. He knew of four cases, within a year, where thoracentesis had resulted fatally, and he felt sure that ether had a great deal to do with the result.

Dr. ELLIS said that those cases where an operation was indicated, and the use of an anæsthetic was to be feared, would seem to be proper ones for the use of the atomizer with rhigoline or some other freezing agent.

Dr. LYMAN said that he was very glad that Dr. Bowditch had called attention to the possible danger in the use of ether in such cases, and was convinced that his idea was perfectly just and well founded. He had reason to think that if the case he had just reported had been etherized, he would have died from the fact of the extreme dyspnoea, sense of constriction and faintness which followed (causing him much uneasiness for fifteen minutes) and which was only overcome by prompt and repeated stimulation, and by encouragement of the patient to some personal effort, neither of which would have been available had he been paralyzed by ether. He farther said that the cause of the temporary distress was, doubtless, due to the removal of too much fluid at one sitting, the lung not being readily expansible, and the neighboring organs, especially the heart, being so suddenly dislocated to occupy the space from which the fluid had been removed.

Dr. ELLIS asked Dr. Bowditch with regard to the indications for stopping in the operation, and whether the severity of the cough and the action of the pump were not the most reliable ones.

Dr. BOWDITCH said that a very severe fit of coughing would make him stop, but that he considered a moderate amount as rather a good

sign, as it shows that the lung is expanding. What he considered the most important indication to cease drawing off the fluid was to be got from the feelings of the patient himself; namely, as soon as a sense of stricture or constriction across the chest was complained of, the operation should cease.

DECEMBER 8th.—Dr. TARBELL showed the two cases of thoracentesis, of which he had spoken at the last meeting, one of whom had been operated on by Dr. Minot, and the other by himself. They both were very satisfactory, the openings having healed, and percussion and auscultation showing that the lungs had returned to almost their normal condition. He then read the following paper:—

"As the subject of empyema was brought up at the last meeting of this society, and objections were raised to the etherization of any patient into whose thorax a free opening was to be made, I will report two cases which have lately been treated in the wards of the Massachusetts General Hospital, and will exhibit the patients.

"One case will show, as far as *one* case may, that ether is not necessarily unsafe in all cases of empyema. The other is a fair type of the cases where it is at least prudent not to give ether. Both cases will, I think, help to show that the danger lies, not in making a free opening while the patient is etherized, but in etherizing while the lungs are so oppressed that the least addition to their burden causes asphyxia.

"1.—Katy H., 13 years old, a mill-operative, was admitted to the Hospital, June 20, 1873. Her mother died of some lung disease. Her father is living and healthy. She has always been well until the present attack, which began two weeks previously, without known cause, with a short hacking cough, but no expectoration. The next day, Dr. Minot examined her, and found the usual symptoms of considerable fluid in the left pleural cavity, the heart being so dislocated that its impulse was heard and seen directly at the xiphoid cartilage. The next day, Dr. Minot performed paracentesis, removing about three pints of purulent fluid with the syringe. She seemed relieved by the operation, but the next day the pulse and respiration began to grow worse again, increasing in frequency until the 30th, when the record reads 'pulse 135; respiration 48; temperature 104.2°; cough urgent.'

"The patient having been fully etherized, Dr. Minot made an incision into the left pleural cavity, between the eighth and ninth ribs, below the scapula, allowing the escape of about a quart of inodorous pus. He then inserted a small rubber drainage tube, and syringed out the cavity with water.

"On the second day afterward, the patient came into my charge, her pulse having gone down from 135 to 100, the respirations from 48 to 30 per minute, and the temperature from 104° to 99.5°.

"The cavity was thoroughly syringed out, twice daily, with a weak solution of carbolic acid. Under good nourishment, mild stimulants, and no medicine except an occasional opiate, she steadily improved. In two weeks after the operation, she was carried out into the garden. In four weeks, she walked out. In four and one-half weeks, the discharge was but a few drops daily, and the tube was removed. Its removal was premature, however, for within twenty-four hours she lost her appetite, became hot and feverish with a pulse of 140 and temperature of 103°. The tube was replaced, the syringing practised as before, and continued until October 17th, fifteen weeks after the operation,

when the tube was finally removed. The wound healed in two weeks.

"At the time of the removal of the tube, the left side was much smaller than the right, but since then, the lung and left side of the thorax have expanded, until they are now nearly as large as the right, and there is very little deformity. The heart has returned to its normal position. The respiratory murmur is good over the left front, and fair over the back, down to within about two inches of the cicatrix of the incision. The patient is fat and rosy, with good appetite and strength.

"II.—Manuel Antone, 21, single, a Portuguese laborer, ignorant of our language, was brought to the Hospital, July 27, 1873, without any history except that he had been sick two months with cough, sharp pain in the left side, and, latterly, urgent dyspnoea.

"On examination, I found the symptoms of enormous distention of the left side of the thorax with fluid which had forced itself out between the ribs at some points, and was burrowing beneath and among the muscles in front of the chest. The heart was dislocated so far that its apex-beat was visible to the right of the sternum. He was literally gasping for breath.

"Without etherizing him, I made an incision through the skin and muscles just below and to the outside of the left nipple, giving exit to four and a-half quarts of creamy, inodorous pus. The distention was so great that the pus was at first expelled in a large stream to a distance of ten or twelve inches from his body. He immediately expressed a sense of relief. A poultice was applied to the wound, and frequently changed. Pus followed in large quantities from the incision, and the patient felt a little easier, but there were no means of determining the location of the perforation of the pleural cavity, and the serious symptoms did not abate. The pulse continued about 120, the respiration 34, and the temperature 102°.

"After waiting three days, I made another incision, plunging the knife directly into the left pleural cavity, between the ninth and tenth ribs, about four inches below and behind the angle of the scapula, giving exit to about two quarts of pus. A small rubber drainage tube was introduced. The cavity was thoroughly syringed out twice daily with a weak solution of carbolic acid (twelve grains to the pint of water). Little or no pus came from the first incision after the drainage tube was introduced. Stimulants and nourishing food were all the medicine he had.

"He improved steadily, with the exception of a single occasion when the tube became misplaced. In three weeks he began to sit up. In four weeks he was carried out into the garden. The discharge decreased slowly in amount until Nov. 18th—sixteen weeks after opening the thorax, when the tube was finally removed. The wound quickly healed. The heart has returned nearly to its normal position. There is resonance over the left side down to a line drawn about one inch below the angle of the scapula, and respiration is heard nearly to this line. There is but little deformity, and there is no lateral deviation of spine.

"I think the successful results in these two cases are due to the persistence with which the wounds were kept open, and to the free drainage permitted by the tube, and also to the faithful and thorough daily syringing of the cavity, carried out by Mr. Rotch, the house-officer.



"I have here a very efficient, and at the same time simple, contrivance for retaining the drainage tube securely; it was invented by Mr. Mosely, one of the present house-officers at the hospital. It is a rubber diaphragm about  $1\frac{1}{2}$  inches in diameter, and a strip of tin 2 inches wide through the centre of which the tube passes, and to which it is easily made fast by adhesive plaster. The ends of the strip of tin are then bent sharply upward—the tube is inserted into the wound, the convex surface of the tin turned toward the thoracic walls to which the ends are made fast by adhesive plaster, thus gently pressing the diaphragm against the wound, holding the tube firmly in place, and at the same time preventing leakage around it.

"To make the tin spring for retaining the drainage tube in its place, take a strip of common sheet tin one inch wide and ten inches long. In the middle of this make a hole just large enough to admit but not constrict the tube to be used. At a distance of three quarters of an inch from this hole, on each side, bend the tin at a right angle so as to form a letter U. At one inch from each of these right angles, bend the tin at another right angle, in an opposite direction to the first. Pass a narrow strip of adhesive plaster around the U-shaped depression so as to prevent its spreading. The tube is to be passed through the hole in the bottom of the U-shaped depression which is to press against the diaphragm through which the tube passes. Pad the ends of the spring with cotton batting, bend it to fit the form of the person to whom it is to be applied, and attach it with adhesive plaster.

"It was suggested at the last meeting that the symptom of a sense of constriction across the thorax, which is relied on as a warning of approaching danger, would be wanting if the patient were etherized. I believe it is conceded that this symptom is induced by the creation of a partial vacuum in the cavity of the thorax, which the lung cannot expand to fill. If a free opening is made with the knife, the air rushes in to replace the fluid flowing out—no vacuum is formed, and this objection does not hold.

"I believe, also, that it is not the usual custom, it certainly is not at the hospital, to etherize for the removal of fluid by means of Dr. Wyman's suction-syringe, or aspirator.

"Of these two cases, the first was fully etherized, and she suffered no ill effects from the ether at the time of the operation, nor subsequently. The second was not etherized. The idea of using ether did not occur to me, nor was it suggested by any of the physicians or surgeons present. The patient seemed to be having as much as he could do to get breath, even aided by voluntary efforts, and it would have taken but a slight addition to the burden to have stopped his breathing altogether. A little more pus would have done it. Had I etherized him, and in doing so deprived him of the little oxygen he was getting, the ether would have been exactly as important an element in causing his death as the proverbial 'last straw' was 'in breaking the camel's back.' The previous load must be taken into account and carefully estimated. It seems to have been pretty well demonstrated that a patient may be asphyxiated while being etherized for any operation.

"The additional danger in etherizing these cases lies in the fact that there is much less lung tissue in working order, through which the system may obtain the necessary oxygen; but the danger is im-



mediate, and I do not see how ether can be justly accused as the cause of a death occurring ten days or four days after the operation. The idea of the knife plunged directly into the thoracic cavity, and the pain also, is something terrible, and we would all wish to save our patients from such agony, if possible. I believe that many of these cases may be *safely* etherized, if it is slowly and carefully done."

Dr. BOWDITCH said that these cases show how surgical interference at the right moment may save life. He was still, however, of the same opinion as at the previous meeting, namely, that in cases where the effusion is so great as to seriously interfere with the respiratory function, ether should be given with great caution.

Dr. ELLIS showed two patients to illustrate the curved line of dulness in cases of pleuritic effusion, of which he had previously spoken. One of the patients had been tapped, in the other the absorption had been spontaneous. Both showed in a very marked manner, that the highest point of dulness was at the side, the line gradually falling as it approached the spine. This line was mapped out by the percussion so as to be perfectly evident from any part of the room. The respiration he stated also followed this line.

Dr. MINOR spoke of one point in connection with the case shown by Dr. Tarbell, in which a permanent opening had been made, namely, the very great advantage of syringing the pleural cavity out with a solution of carbolic acid. This so effectually controls the bad odor which is always present in these cases that, by this means, the operation can be done in a large ward, instead of having to isolate the patient as was formerly the case.

*Villous Disease of the Bladder.*—Dr. FIFIELD reported the case. C. C., a native of Ireland, 54 years old, and a resident of East Boston, entered the hospital Oct. 14, 1873. He has passed bloody water occasionally for twelve years. He had no pain until five years ago; since then he has had severe pain above the pubes and in the perineum, with a desire to make water frequently. Last March he had retention for the first time. He has had retention frequently since; it is always relieved by opiates and warm fomentations. He has worked at his trade (ship-carpenter) until three weeks ago, when Dr. Thorndike passed a sound and advised him to go to the hospital. He never had gonorrhœa or any venereal disease.

At present the patient is much emaciated; the countenance denotes suffering, appetite poor, pulse 95, tongue coated. Introduction of the finger into the rectum and pressure upon the prostate causes excruciating pain. The prostate is slightly enlarged. He passes urine every hour and has constant pain. On examination of the urine, the following characters were found: Color muddy; reaction alkaline; odor very offensive; albumen fifty per cent.; pus in large quantity, with considerable blood and mucus; sediment large; no casts.

He gradually failed, and died Nov. 8.

*Autopsy*, by Dr. BOLLES.—The organs were generally in very fair condition, perhaps a little pale, but not otherwise remarkable.

The kidneys, especially the left one, were very much dilated by the backward pressure of urine. The ureters shared in the distention.

The bladder was large, and with the organs just mentioned, filled with thick purulent urine. Its mucous membrane was healthy looking except as mentioned below. Prostate not enlarged. Growing from

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the trigonum vesicæ and base of the bladder behind it were one large and four smaller masses of villous growth, in all equalling the bulk of a goose's egg. The two or three smaller bunches were attached by a single narrow peduncle to the bladder, and the mucous membrane even in the immediate vicinity did not appear to be changed. The growths showed no disposition to increase at the base. The two largest were attached by broader bases to prominent rugæ. All spread out in fine branches at the top like bushes or sheaves of wheat; and, to the naked eye, almost exactly resembled the villi of the chorion.

Microscopically, they consisted of fibrous branched pedicles bearing tufts of branching villi, each branch usually consisting of a large looped vessel, twisted or perhaps varicose and tortuous and covered with cylindrical epithelium; but where these loops reached the general surface of the tumor, the epithelium was macerated off, leaving only the naked vessels, and these sometimes separated and formed an open loop; in some parts there was instead a membranous expansion bearing little short papillæ.

Dr. FIFIELD also showed two microscopic sections of the tumor, showing its villous structure very beautifully.

Dr. JACKSON said that this disease was always found in the lower half of the bladder. He thought that, usually, a whitish, solid tissue could be found beneath the villous structure. As far as he knew, there was no reason to suppose that it ever affected any other part of the body than the bladder.

Dr. FITZ said that the term cancer was applied to this growth more from its gross appearance than from an anatomical or clinical point of view, as it was pretty well conceded that it was confined to the mucous membrane.

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PETITEAU AND ISARD ON IODOFORM AS A TOPICAL REMEDY.—Dr. Courteaux (*Annales de Dermatologie et de Syphiligraphie*, vol. v. 1873-4) gives a summary notice of two recent works by these gentlemen on the use of iodoform. Petiteau's conclusions, which, Dr. Courteaux says, agree with his own and those of several surgeons at the Midi Hospital of Paris, are as follows:—

1. Iodoform is locally anæsthetic.
2. When dusted on ulcerating surfaces, it causes them to cicatrize rapidly.
3. It is most useful in small atonic wounds, or such as tend to creep or enlarge; soft chancres, suppurating buboes; syphilitic, varicose, scrofulous and cancerous ulcers.
4. It is the surest remedy to procure prompt cicatrization of syphilitic ulcers of all kinds.
5. It may be applied as an ointment, or as a solution in glycerine and alcohol, and in these forms is preferable to the powder when there is abundant suppuration.
6. It should be always accompanied in syphilitic affections by internal treatment.

Petiteau attributes its good effects to the simplicity of the dressing, to its antiseptic power, and to the absorbent property it possesses as a powder, and to its giving off iodine freely.

Isard, while agreeing with many of the conclusions of Petiteau, maintains that phagedæna is not controlled by iodoform.—*London Medical Record*.

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**Boston Medical and Surgical Journal.**

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BOSTON: THURSDAY, FEBRUARY 12, 1874.

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IN our issue of July 24th, 1873, we published some editorial remarks on *Jourdain's* so-called *Gallery of Anatomy*, and also a letter from Mayor Pierce to the secretary of a committee appointed for the suppression of this nuisance, in which his Honor promised that a new license should not be given to its proprietors. In spite of the efforts of the quack, the Mayor's promise was fulfilled, the Board of Aldermen coöperating in the interests of morality. We understand that Jourdain has applied again for a license, to the new Board, but as it is inconceivable that he should prevail, after such a precedent, and as the committee of the Boston Society for Medical Observation is on the alert, and ready to offer evidence as to the immorality of the exhibition, we may congratulate the community on being freed from this disgrace.

IN this connection, we have a word to say on the conduct of the press. One or two journals briefly alluded to our attack, but not one dared to say to us "well done!" Jourdain's address, which is the gist of his mendacious advertisement that his "new museum will re-open shortly," continues to appear under the head of "amusements" in the daily papers, with, we believe, one single exception. The *Globe*, we are happy to say, has considered decency rather than money, and has put a stop to this disgraceful advertisement. Considering how much we hear of Boston's high moral tone, particularly when it compares itself with New York, is not the following fact a little remarkable? New York is cursed with a "Museum of Anatomy," but, as far as we know, the *Herald* is the only large journal that advertises it. We do not see its announcements in the *Times*, the *Tribune*, the *World*, the *Evening Post* or the *Commercial Advertiser*; but in Boston, the youngest daily paper is the only one that refuses a more inexcusable advertisement, for while in New York the "Museum" has a real existence, here it has not.

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THE recent death of the Siamese twins has re-kindled the interest of the profession in these strange beings, and now that an opportunity to settle the question of their anatomy has, finally, been obtained, by the removal of their bodies to Philadelphia for the purpose of examination, it is not without interest that we take a retrospective glance at some of the numerous statements and accounts of medical examinations which



have, from time to time, made their appearance in the medical journals of this and other countries. We would call the attention of our readers more particularly to our issue of Sept. 1st, 1829, where a full, and probably the first, account is given of them after their arrival in this country. The account, with the wood-cut accompanying it, show them to be very different creatures in their appearance from the rather infirm and sickly-looking brothers who showed themselves in this city a few years ago. The *Richmond County Gazette* gives an extract from the *New York Courier and Enquirer*, which appeared on their visit to New York a few weeks later. It consists of a statement from two physicians, wherein the opinion is expressed that "there can be no doubt but that, if these boys were separated by the knife and this band cut across at any part, a large opening would be made into the belly of each that would expose them to enormous hernial protrusions and inflammations that certainly would prove fatal;" and, further on, "they are so perfectly satisfied with their condition that nothing renders them so unhappy as the fear of a separation by any surgical operation; the very mention of it causes immediate weeping." This could hardly have been the case in later years, when experiments were permitted by them to ascertain the possibility of a separation, during their late visit to Europe.

The examination is to be made this week in the College of Physicians, Philadelphia, and we shall look forward with interest to the report.

## The Hospitals.

### MASSACHUSETTS GENERAL HOSPITAL.

(Saturday, January 31, 1874.)

OPERATIONS were performed in the following cases:—Cancer of Lip, Cancer of Breast, Tumor of Jaw, Disease of the Ankle-joint, Polypus Nasi, Tumor of Neck, Talipes Varus, Felon. During the week, R. R. Injury to Foot, Tumor of Uterus, Compound Fracture of Leg.

*Cancer of Lip*—in a male adult. Dr. Cabot removed it by a V incision.

*Cancer of Breast*—of four years' standing, in a woman thirty-eight years old. Dr. Hodges remarked that the growth was of the kind known as atrophying or cicatrizing scirrhus. In this form of cancer, the cells contained in the alveoli, having undergone granular degeneration, and the latter being almost obliterated, the tissues contract. Hence the cicatricial aspect and the density and smallness of the growth, considering the time of its duration. This variety of the disease sometimes remained stationary for many, even a dozen, years. In the present instance, it was removed in deference to the patient's wishes. A single isolated, movable and superficial gland was excised from the axilla.

*Tumor of Lower-jaw*—in a man forty years old. Ten months ago, a cancer of the lip was excised; four months after, a swelling appeared on the outer side of the jaw, at a point corresponding with the location of the sub-maxillary gland. It has gradually increased, and now surrounds the bone, making a firm tumor of the size of a hen's egg. Dr. Cabot made an elliptical incision around a portion of skin involved by the disease and a section of the jaw on each side of it. The mass was then removed by cutting away its attachments to the floor of the mouth.



*Disease of the Ankle-joint*—in a boy sixteen years of age. He had been crippled by it for four years, and was a constant sufferer from pain. The joint was enlarged, the soft tissues were cedematous, and perforated on the inner and outer sides by fistulous openings communicating with its interior. On moving the foot, no crepitation was felt; this was due to the gelatiniform degeneration of the cartilage and synovial membrane. As to the comparative advantages of amputation and excision, Dr. Hodges said that, in this case, the former offered the best chance. The boy's health was impaired, and excision would require so long time (at least a year) for recovery; would involve such a risk to life, in his present condition, and in the end, probably, give the boy a foot so much less serviceable to earn his living with, that amputation and an artificial foot were to be preferred. Soupart's amputation was performed without loss of blood, the leg having been bandaged, as usual, from the toes to the tourniquet.

*Polypus Nasi*—in a male adult. Removed by Dr. Cabot, with forceps.

*Tumor of Neck*—of four year's duration, in a young female adult. It was situated in the sub-maxillary triangle, and of the size of an English walnut. Dr. Cabot excised the growth, which proved to be glandular, with a small cavity in its centre, containing pus.

*Talipes Varus*—congenital, in a boy of six years. The deformity was due to the contraction of the plantar fascia. This, Dr. Cabot divided subcutaneously.

*Felon*—incised by Dr. Cabot.

*R. R. Injury to Foot*—Dr. Hodges amputated three toes.

*Tumor of Uterus*—of one year's growth, in a married woman thirty-two years of age. She had had one child. Last April, she first noticed a peculiar sensation in the lower part of the abdomen, "as though something was moving." The menstrual fluid at the same time became mixed with a yellowish discharge, and there was some tendency to flow during the intervals between menstruation. Now, the uterus can be felt, through the abdominal walls, as large as a child's head at six months. The fundus was tipped forward and the os backward. Within a few days, she has had what she describes as labor pains; since then, a large, round, hard tumor has been expelled from the uterus, and nearly fills the vagina. A broad and firm pedicle connects it with the interior of the uterus. Dr. Cabot made a number of attempts to cut off the growth with the wire écraseur, but each time the wire yielded instead of the pedicle. He then cut the pedicle with curved scissors. There was very little hæmorrhage during and after its removal. Under the microscope, it proved to be myo-fibroid.

*Compound Fracture of Leg*—in a man who was unable to account for his condition. The wound was enlarged, and the protruding fractured ends were approximated and wired by Dr. Cabot.

H. H. A. BEACH.

### BOSTON CITY HOSPITAL.

AMONG the surgical operations last Friday, February 6th, were the following:—

Excision of the Head of the Femur was performed by Dr. Cheever. The patient was a child of seven years. He came to the hospital Dec. 1st, with the story that there had been symptoms of hip disease during the previous month; there was pain about the joint, limping, flattening of the nates, muscular rigidity. He was put in bed, and a condition of rest to the joint maintained by extension by a pulley and weight. During the first month of this treatment, there was amelioration. Then there was a relapse, and during the past six weeks the symptoms were more severe. Latterly, an abscess had formed about the joint, accompanied by daily hectic. The abscess was opened four days ago, and an extensive sinus discovered, communicating with the joint. At present, under ether, distinct grating was felt on motion of the parts.

The operation for excision consisted of the exposure of the hip-joint by a

V-shaped incision of the soft parts, separation of the head of the bone from the acetabulum, and section of the surgical neck of the femur by means of a chain-saw. The section of the bone above the trochanter was done because by this division all the diseased part was removed, and because it spared division of firm, muscular attachments posteriorly, which were likely to be of future use to the patient in swinging the limb. The V-shaped flap was fastened up to the skin above by a wire suture, and the wound was left open to granulate. Extension would be presently applied.

The head of the bone was extensively eroded, and partially absorbed. The acetabulum was slightly carious at its upper margin.

Dr. Cheever said the absence of grating in the joint is not a proof of the absence of caries; since it sometimes happens that the head of the bone is covered by soft granulations, which serve as a cushion to conceal the rubbing sound.

Dr. Wadsworth performed Enucleation of the Eyeball in the case of a female patient, forty years old, who had presented herself a month ago with purulent ophthalmia, and a deep ulcer of the cornea. She refused hospital-treatment at that time, and after a few days returned with the cornea sloughing and the iris exposed. The removal of the globe was proposed, to save the excessive pain of farther inflammation in the diseased eye, and to prevent the occurrence of sympathetic ophthalmia in the other eye.

Dr. Wadsworth also operated for Convergent Strabismus in an adult patient. He called attention to the fact that, during anaesthesia, the deformity appeared less, and the divergence, after the operation, greater than when the patient was not under ether. After division of the rectus muscle, he closed the conjunctival wound with a small silk suture.

Other operations, not reported in detail, were the Ligation of Internal Hemorrhoids, and the opening of an extensive Palmar Abscess.

On Tuesday, February 2d, Dr. Cheever performed Herniotomy. The patient, a man of middle age, had had a reducible hernia for many years. It now filled the right half of the scrotum, and was of the oblique inguinal variety. The scrotum was tense, shining and red, but the rupture was not very tender. It had been down six hours, and taxis had been used. The patient had nausea and colic. He was etherized, and taxis was again employed, aided by inverting the patient, and pushing back the contents of the abdomen from the right groin towards the diaphragm. Near the canal, the hernia felt very hard and dense. Taxis proving ineffectual, herniotomy was done. The sac contained a large amount of bloody serum; about six inches of small intestine lay in it, in a loop. The bowel was congested, but not very dark. The ring was tightly filled. The stricture was divided upwards, and the bowel freed.

It was then found that the mesentery, which constituted the bulk of the neck of the hernia, was extensively ecchymosed, with extravasated, dark blood. This unusual condition must have resulted from the taxis, and the condition of the intestine must have grown rapidly worse, if subjected to the double interruption of its circulation, consequent on the ecchymosis and the stricture. The bowel was easily returned; the abdomen was carefully sponged out, and a spica bandage applied.

F. W. DRAPER.

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## Correspondence.

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### THE SQUIRE INVESTIGATION FROM A CHEMICAL POINT OF VIEW.

MESSEURS EDITORS:—I claim the right to reply to your editorial of January 22nd. The Squire trial was, as you say, a judicial investigation conducted by an executive body—so it seems to the mind of a layman. This tempts me to ask why legislative acts mean so much when constitutions mean so little; to inquire what is the intent of the Bill of Rights, when it says the three branches of the government, legislative, judicial and executive, shall

not be held in common "to the end that this may be a government of laws, not of men."

If the health Acts are constitutional, this State Board and all other Boards of Health have, as you say, "*unlimited power of action!*" For they can search without warrant, seize without judgment, confine for no offence. They can make rules which the courts shall enforce by penalty, without even the safeguard of the veto interposed! They can try and render verdicts as you have shown, and are empowered to execute in person their own judgments and decrees—even more—they can give their despotic powers to whom they will.

The charge of infant murder "you will not dwell upon." Reading the report of the State Board of Health for 1873, p. 227, one cannot but notice that in Boston, where no slaughter houses are, the effects of poverty and dense population of foreign descent caused the infant mortality of one district to be six times that of another a mile off. It can hardly be supposed these causes have a like effect in Cambridge. These cities are too far apart.

In Boston the wealthy are healthy, (see p. 228, Report of 1873.) Profitable employment is a sanitary agent of marvellous power, worth more than all others put together. But should a medical journal recommend that moneyed interests be left out of sight? Logic has been at a discount since Dr. Holmes wrote the "One Hoss Shay."

You speak of chemical special pleading "summoned to confound the natural senses of man." Is the scientific method a failure, as Dr. Ewer pronounces Protestantism to be? Are we to return to the unaided senses to discover truth? Shall we condemn any industry as a nuisance without remedy, guided by intuition alone? Shall we disregard evidence? Two chemists investigated this case separately. They had no previous acquaintance with each other or with the cause on trial. Neither knew the results or arguments of the other until they were read in open court.

One at least was to receive a fixed compensation for the investigation, whatever his report, and he has received neither more nor less. Yet so far as these chemists covered common ground their results were identical.

Are scientific men destitute of hearing, sight and smell, that the testimony of their senses, aided and unaided, should be ignored?

In all previous investigations, the complainants rested their case on the sulphur gases that blackened their paint and broke down on acrol which has not been mentioned in the present trial. When this time they testified, one and all, that the nights of discoloration were the nights complained of, they spoke truly.

Yet the Board of Health to-day, if their summary can be relied upon, say these gases come from the basin.

It was distinctly proved that factories rendering fresh lard gave no offence. If the Squire factory gives out such odor it must be supposed that putrid fats are maliciously rendered there. But the 1871 report of the Health Board expressly says that if the vapors from tight tanks are discharged under water all offence is avoided.

This apparatus, approved by the Board, was so violently attacked that a new contrivance, adding destruction of the gases by fire to the former precautions, was adopted. But this new precaution was still more bitterly inveighed against. Scientists approved it, small politicians did not.

It is a certainty that putrid matter in contact with an acid gives off the identical vapor that comes from a putrid body, boiling or trying out. No one denies the putridity of sewage products in hot weather.

It is known that immense quantities of acids go into the sewers. Mineral acids from factories, lactic and acetic acids from household refuse, and all fermenting matters. It is not a matter of guesswork that drains of small fall and settling basins give off rendering smells.

On one occasion, a yacht off Hingham got aground on the mud banks; every body at once exclaimed, where is the bone factory? Yet there was none within miles. When will medical men learn the simple chemical fact that the *rendering smell* comes off whenever an acid runs over or is generated

within a putrid mass. As for the noise, pig objects to become pork and will. Suppose we deafen the wall of the sticking pen as architects do floors.

C. E. AVERY.

### Medical Miscellany.

WE are informed that the government of the Long Island College Hospital has refused to accept Dr. Greene's resignation of the Chair of Surgery, and that he has accordingly withdrawn it. Dr. Greene holds the same position at Bowdoin.

THE COUNCILLORS OF THE MASSACHUSETTS MEDICAL SOCIETY, at a meeting held last week, passed a resolution appointing a special committee to urge upon Congress the repeal of the Act of 1869, so far as it concerns the Army Medical Staff.

THERE seems to be quite an unanimous opinion as to the propriety of passing the bill now before Congress to increase the efficiency of the medical department of the army. The Essex North District Medical Society recently passed resolutions similar to the following:

"At a Regular Monthly meeting of the Suffolk District Medical Society, holden in Boston on the thirty-first of January, 1874, the following resolutions were adopted:

"Resolved, That the Suffolk District Medical Society hereby cordially unites with the Ohio Medical Association in their Memorial to Congress in support of a Bill to increase the efficiency of the Medical Department of the United States Army, now before that Honorable Body.

"They consider it an act of justice that the members of so important a branch of the public service, gentlemen of the highest professional attainments and excellence of character, and charged with such weighty and responsible duties, should hold the same relative rank and enjoy the same emoluments as members of the other Staff Corps of the Army.

"That it be respectfully urged upon the Members of Congress from Massachusetts to use their influence in support of the Bill in question.

"That a copy of the above Resolutions, duly authenticated, together with a copy of the Memorial Pamphlet, be furnished to each Member of Congress.

"Resolved, also, that a copy of these proceedings be furnished for publication to the Medical Journals.

(signed) F. MINOT, President.

(signed) O. F. WADSWORTH, Secretary."

#### MORTALITY IN MASSACHUSETTS.—Deaths in eighteen Cities and Towns for the week ending January 31, 1874.

Boston, 136; Worcester, 10; Lowell, 16; Milford, 3 Cambridge, 22; Salem, 7; Lawrence, 17; Springfield, 12; Lynn, 16 Gloucester, 5; Fitchburg, 3; Taunton, 8; Newburyport, 4; Somerville, 6; Fall River, 16; Haverhill, 3; Holyoke, 7; Pittsfield, 5. Total, 206.

Prevalent Diseases.—Consumption, 65; pneumonia, 35; scarlatina, 24; typhoid fever, 14.

Of the deaths from scarlatina Boston reports 9, Lynn 6, Cambridge 2, Lawrence 2.

GEORGE DERBY, M.D.,  
Secretary of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, Feb. 7th, 1875. Males, 74; females, 61. Accident, 5; apoplexy, 3; bronchitis, 5; inflammation of the brain, 1; disease of the brain, 7; cerebro-spinal meningitis, 3; cancer, 3; cyanosis, 1; consumption, 33; convulsions, 4; croup, 2; debility, 6; diarrhoea, 1; dropsy, 3; dropsy of the brain, 4; diphtheria, 1; scarlet fever, 6; typhoid fever, 1; gastritis, 1; disease of the heart, 2; inanition, 1; disease of the kidneys, 2; congestion of the lungs, 2; inflammation of the lungs, 10; malformation, 1; marasmus, 3; measles, 1; quinsy, 1; old age, 1; paralysis, 3; pleurisy, 1; premature birth, 2; peritonitis, 2; puerperal disease, 3; purpura, 1; scrofula, 1; tumor, 1; teething, 1; ulcers, 2; unknown, 4.

Under 5 years of age, 49; between 5 and 20 years, 20; between 20 and 40 years, 31; between 40 and 60 years, 18; over 60 years, 17. Born in the United States, 94; Ireland, 33; other places, 8.